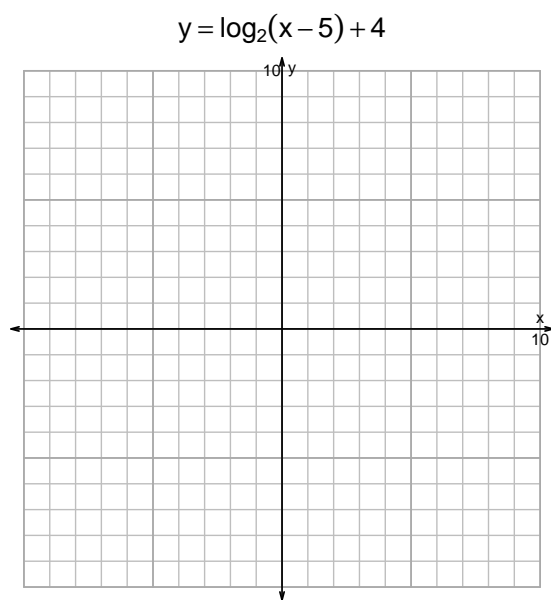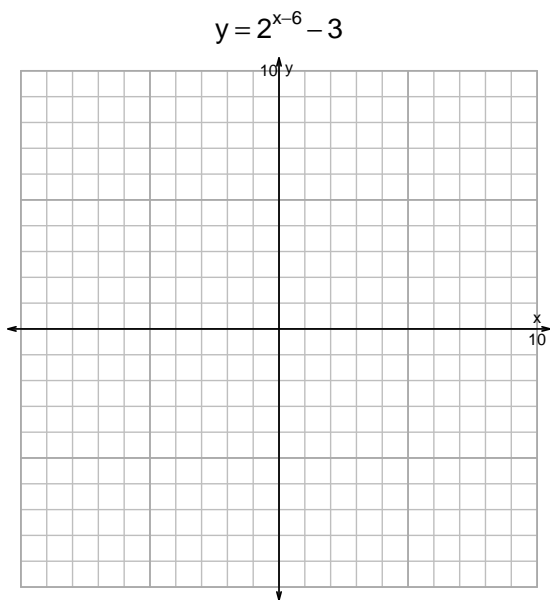Name: Date:
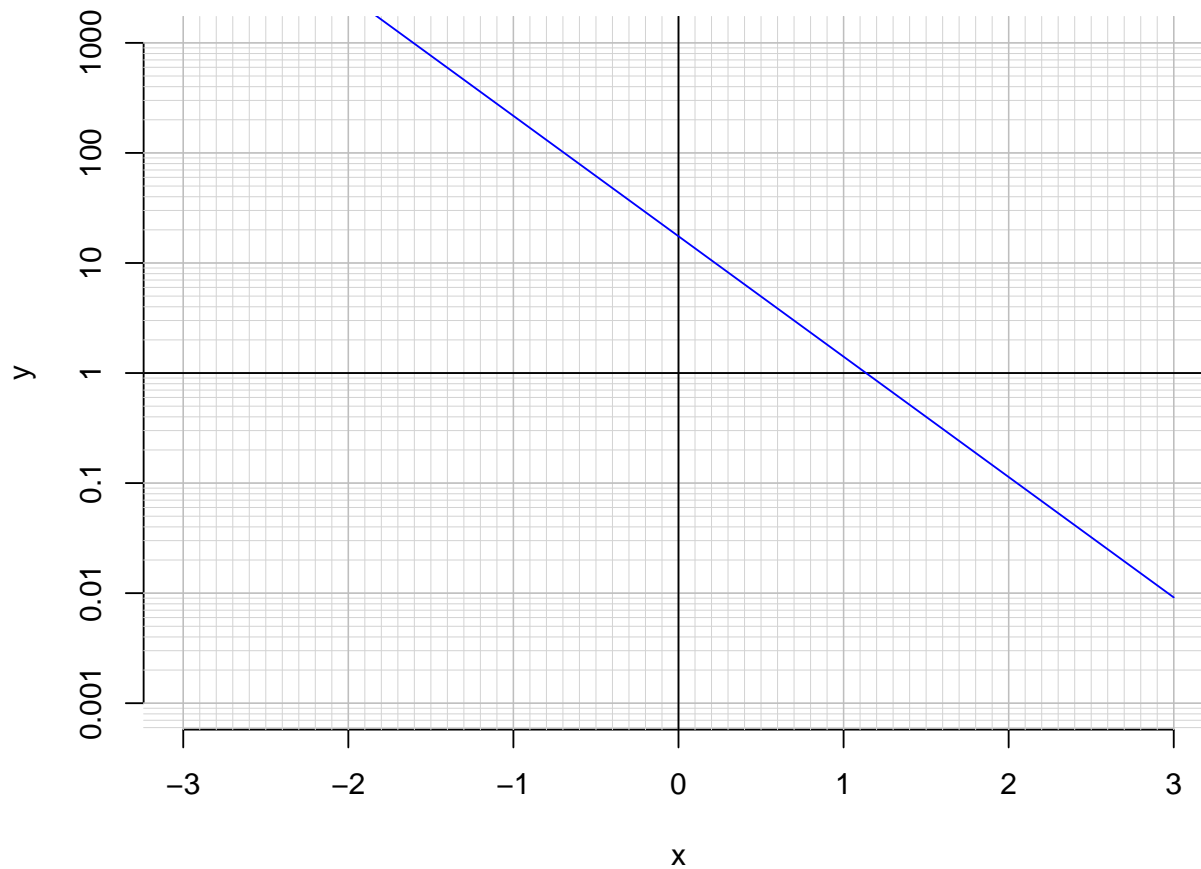
s18QUIZ: EXP LOG (QUIZ v290)

1. Graph $y = 2^{x-6} - 3$ and $y = \log_2(x - 5) + 4$ on the grids below. Also, draw any asymptotes with dotted lines.

$$y = 2^{x-6} - 3$$

$$y = \log_2(x - 5) + 4$$

2. Write (but do not evaluate) the solution to the equation below by writing a logarithmic expression.

$$-11 = \left(\frac{-7}{3}\right) \cdot 10^{-4t/5}$$

3. An exponential function $f(x) = 17.5 \cdot e^{-2.52x}$ is graphed below on a semi-log plot.

a. Using the plot above, evaluate $f(0.7)$.

b. Express $f^{-1}(x)$, the inverse of f.

c. Using the plot above, evaluate $f^{-1}(0.4)$.